REMARKS

By this amendment, claims 1, 3, 16, and 17-18 have been amended in the present application. No new subject matter has been introduced by way of these amendments. Accordingly, claims 1 and 3-20 remain pending in the present application. Reconsideration of the application is respectfully requested of the Examiner.

Claims 1, 12, and 16-17 stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over **Gurusami**, et al. (U.S. Patent No. 6,031,846) in view of **Valencia** (U. S. Patent No. 6,650,652). Applicants respectfully traverse this rejection in view of the amendments and remarks set forth below.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Independent claim 1, as amended, now includes the claimed feature from dependent claim 3. That is, the delay is also based on a defined length of the non-delay sensitive information (NDSI) being transmitted. In view of these amendments, Applicants believe that a new search by the Examiner is not necessary since, in amended independent claim 1, a feature recited in claim 3 depending therefrom is simply incorporated therein. Likewise, independent claim 16 now incorporates a similar feature from its dependent claim 18. The Applicants respectfully traverse the Examiner's rejections to claims 1 and 16.

Independent claim 1 sets forth, among other things, a method for transmitting delay sensitive information (DSI) over a communication link of a communication network. In the method of claim 1, Applicants claim and describe, transmitting an <u>initial</u> DSI after <u>selectively applying a delay to the initial DSI</u> where such delay is <u>based on</u> a determined periodicity of the received DSI and <u>a defined length of non-delay sensitive information (NDSI) being transmitted</u>

in response to <u>identifying a received DSI</u>. Support for the amendments can be found throughout the Applicants' Specification including on page 12, lines 3-9 and page 13, lines 14-22.

The Office Action suffers from many deficiencies. For example, according to claim 1, the delay that is applied to the <u>initial</u> DSI is not only based on the periodicity of the initial DSI, but is also <u>based on the length information of the NDSI</u>, *e.g.*, resulting from a fragmentation operation such as a dynamic fragmentation. This is, however, not the case in ***Gurusami***, as alleged by the Examiner. To the contrary, ***Gurusami*** determines a <u>delay factor for each transmitter based on</u> the <u>packet arrival time measured</u> from the corresponding transmitter. See ***Gurusami***, col. 7, lines 40-60 and Figure 10 (stating that measuring a packet arrival time of each packet from each transmitter and identifying a latest packet arrival time for determining a delay factor for each transmitter).

As such, in ***Gurusami***, each transmitter delays its response, relative to a time reference. See ***Gurusami***, col. 2, lines 39-45. A Cable Antenna Television (CATV) head end dynamically adjusts each transmitter's delay time. As indicated above, independent claim 1, in contrast, calls for <u>selectively applying a delay</u> to the <u>initial</u> DSI based on the <u>defined length of</u> non-delay sensitive information <u>(NDSI) being transmitted</u>. Thus, for at least this reason, independent claim 1 and its dependent claims are allowable. Likewise, independent claim 16 is allowable for at least the aforementioned reasons.

The Office Action suffers from other deficiencies as well. For example, consider claim 12, which depends from claim 1. Claim 12 calls for maintaining a list of transmission times for received <u>initial</u> DSI. The Examiner asserts that this feature is disclosed at col. 7, lines 50-55 of ***Gurusami***. The cited passage describes <u>measuring</u> the packet <u>arrival time</u> for each transmitter.

Thus, this passage refers to measuring arrival times, and does not refer to <u>maintaining</u> a list of <u>transmission times</u>, which is what claim 12 calls for.

Applicants further submit that claim 12 is not rendered obvious over ***Gurusami*** and in view of ***Valencia***. The Examiner relies on ***Valencia*** to describe the claim limitations not taught by ***Gurusami***. However, ***Valencia*** fails to remedy the fundamental deficiencies of ***Gurusami*** discussed above. Moreover, the ***Gurusami*** and ***Valencia*** references also fail to provide any suggestion or motivation for modifying the prior art to supply Applicant's claimed invention.

With regard to claim 16, a method calls for delaying of transmission of a set of packets associated with a packet flow and the method includes identifying information associated with at least one packet of the set as at least one of delay sensitive information (DSI) or non-delay sensitive information (NDSI), <u>determining</u> whether the received DSI is an <u>initial DSI,</u> and selectively applying a delay to the DSI based on at least one parameter associated with a received DSI of the packet <u>and the packet length of the NDSI being transmitted</u>. The Examiner asserts that the features in claim 16 are obvious over ***Gurusami*** and in view of ***Valencia***. The Applicants respectfully submit that claim 16 is not obvious over ***Gurusami*** and in view of ***Valencia*** in a *prima facie* manner, as alleged by the Examiner, for at least the reasons indicated above in the context of claim 1. Accordingly, claim 16 and its dependent claims are allowable.

Examiner's rejection of claim 17 is similarly flawed. Claim 17 calls for determining whether the received DSI is an <u>initial</u> DSI and transmitting the received DSI based on a <u>transmission periodicity</u> of a DSI packet in the set of packets. The Examiner argues that this feature is taught at col. 7, lines 57 to col. 8, line 5 and Figure 10. Applicants respectfully disagree because the cited passage does not teach or suggest transmitting the received <u>initial</u> DSI

based on a <u>transmission periodicity</u>, but rather describes transmitting <u>each packet</u> based on the <u>packet arrival time</u>. For this additional reason, claim 17 is allowable.

The Office Action suffers from other deficiencies with respect to independent claim 1 that includes identifying a received DSI. That is, with respect to the claimed feature of "identifying a received DSI," the Examiner argues that *Valencia* discloses at col. 9, lines 9-31, monitoring if a latency-sensitive packet such as a UDP voice packet is received or a latency-insensitive packet such as data is received. So, here, the Examiner is asserting that the "identifying" corresponds to <u>distinguishing between delay sensitive and delay insensitive</u> packets. See Office Action, page 3.

However, the Examiner's Position is inconsistent with the claimed feature "transmitting an <u>initial DSI in response to identifying the received DSI</u>" because *Valencia* monitors a packet flow to determine whether a packet is latency-sensitive or latency-insensitive. In other words, *Valencia* does not satisfy the claimed feature of "transmitting an <u>initial DSI</u> in <u>response to identifying.</u>" Thus, *Valencia* fails to teach or suggest that the received DSI is identified for transmitting an <u>initial</u> DSI. In view of at least this deficiency, claim 1 and its dependent claims are allowable over *Gurusami* and in view of *Valencia*, either considered alone or in combination.

Claims 13-15 under 35 U.S.C. §103(a) stand rejected as being allegedly unpatentable over *Gurusami* in view of *Ellis* et al. (U.S. Patent No. 5,497,371). The Applicants respectfully submit that the section 103 rejections should be withdrawn for at least the aforementioned reasons.

Independent claim 13 and its dependent claims 14-15 are allowable for at least the reasons presented above. In particular, claim 13 sets forth, among other things, an apparatus that

selectively applies a delay to the received initial DSI based on the defined length of NDSI being transmitted. This feature is discussed in the context of claim 1. The Examiner relies on *Ellis* to describe the claim features not taught by *Gurusami*. However, *Ellis* fails to remedy the fundamental deficiencies of *Gurusami* discussed above. The cited references also fail to provide any suggestion or motivation for modifying the prior art to arrive at Applicants' claimed invention. Applicants' respectfully submit that the present invention is not rendered obvious over the cited references, considered either alone or in combination. For at least the reasons discussed above, Applicants' respectfully submit that the present invention is not obvious over *Gurusami* and in view of *Ellis*. Applicants request that the Examiner's rejections of claim 13 should be withdrawn. Additionally, dependant claims 14 and 15 are also allowable for the same reasons discussed above in conjunction with claim 13.

With regard to rejections of claims 3 and 18-20 under 35 U.S.C. §103(a) as being allegedly unpatentable over *Gurusami* in view of *Valencia*, and further in view of *Ellis*, the Applicants respectfully traverse the section 103 rejections of claims 3 and 18-20 for at least the aforementioned reasons. Regarding claim 3, the Examiner alleges that *Gurusami* discloses in col. 7, lines 40-45 transmitting delay sensitive packets (telephony) and non-delay sensitive (data) packets over a communications link. The Examiner asserts that *Gurusami* further discloses in col. 6, lines 42-58 that transmission for each device is specified with twelve bytes of payload.

In *Valencia*, the Examiner relies on Figure 4 and col. 9, lines 9-31 to assert that a receiver is being able to distinguish by monitoring if a latency-sensitive packet such as a UDP voice packet is received or latency-insensitive packet such as data. Based on the latency sensitivity of the packet, according to the Examiner, default action of transmission with respect to fragmentation or without fragmentation takes place. In this manner, the Examiner acknowledges

that *Gurusami* and *Valencia* fail to explicitly disclose use of a defined length of NDSI (Non-delay sensitive information) being transmitted. However, the Examiner relies on *Ellis* to teach a packet transport system for mixed traffic in which a packet fragmentation protocol allows traffic of difference classes to occupy a single physical link. The Applicants disagree and respectfully submit that *Ellis* fails to cure the fundamental deficiencies of *Gurusami* and *Valencia*, as discussed below.

In *Ellis*, the Examiner notes that since packets within the broadband network are of fixed or variable length, the delay is based on a defined length such as 16K bytes of low priority data (data-delay insensitive) being transmitted in column 7, lines 54 to column 8, lines 40. In this way, the Examiner concludes that it would be obvious to one of ordinary skills in the art to modify the teachings of *Gurusami* in view of *Valencia* to include the delay based on defined length NDSI being transmitted as taught by *Ellis* to accurately account for and alter non-sensitive traffic causing delay in a coexisting link to transport delay sensitive traffic with minimal switching and assembly delays. Since *Ellis* fails to cure the fundamental deficiencies of *Gurusami* and *Valencia*, as discussed above, claim 3 is in condition for allowance. Moreover, the *Gurusami*, *Valencia* and *Ellis* references fail to provide any suggestion or motivation for modifying the cited art to arrive motivation for modifying the cited art to arrive at the Applicants' claimed invention in claim 3.

Applicants further submit that claim 18 is not rendered obvious over *Gurusami, Valencia* and in view of *Ellis*. The Examiner relies on *Ellis* to describe the claim limitations not taught by *Gurusami* and *Valencia*. However, *Ellis* fails to remedy the fundamental deficiencies of *Gurusami* discussed above. Moreover, the *Gurusami, Valencia* and *Ellis* references also fail to

provide any suggestion or motivation for modifying the prior art to supply Applicant's claimed invention.

Additionally, dependant claims 19-20 are also allowable for the same reasons discussed above in conjunction with claim 18.

Reconsideration of the present application is requested. In light of the arguments presented above, Applicant's respectfully assert that all claims are allowable. Accordingly, a Notice of Allowance is respectfully solicited.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4089 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

WILLIAMS, MORGAN & AMERSON, P.C.

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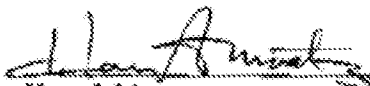(713) 934-7011 fx

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